DOCUMENT RESUME

ED 124 222 JC 760 303

AUTHOR Pierog, John Joseph
TITLE An Investigation to Determine if a Positive Correlation Exists Between Student Scores on the Survey of Study Habits and Attitudes and Students' Grade Point Average.
PUB DATE 15 Jun 76
NOTE 22p.; Ed.D. Practicum, Nova University

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *College Students; Comparative Analysis; *Grade Point Average; Junior Colleges; *Literature Reviews; Post Secondary Education; *Student Attitudes; *Study Habits; Study Skills
IDENTIFIERS *Survey of Study Habits and Attitudes; York College of Pennsylvania

ABSTRACT

In order to determine whether students' study habits and attitudes have an effect on their grade point average (GPAs), the Survey of Study Habits and Attitudes was mailed to a random sample of 10 percent of the full-time students at York College of Pennsylvania. The 40 usable responses were matched with the students' GPAs, and it was determined that a positive correlation between GPA and survey score existed. On the basis of this correlation, the establishment of a developmental course in study skills at York College is recommended. A survey of the literature is included. (NHM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED124222

An Investigation To Determine If A Positive Correlation Exists Between Student Scores On The Survey Of Study Habits And Attitudes And Students' Grade Point Average

Learning Theory And Application

by
John Joseph Pierog, M.Ed.
York College Of Pennsylvania

Dr. Glenda Lee

A PRACTICUM PRESENTED TO NOVA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY

June 15, 1976

JC 760 303

TABLE OF CONTENTS

1. Research Abstract..... i

2. Introduction..... 1

3. Background and Significance of the Study..... 3

4. Procedures..... 9

5. Results..... 13

6. Discussion, Implications and Recommendations..... 13

7. Bibliography..... 16

8. Appendixes..... 17

Research Abstract

Pierog, John Joseph - "An Investigation To Determine If A Positive Correlation Exists Between Student Scores On The Survey Of Study Habits And Attitudes And Students' Grade Point Average". June 15, 1976.

The nature of the problem investigated in this research study focused around determining if a positive correlation existed between student scores on the Survey of Study Habits and Attitudes and their respective grade point average. It was hoped that if the finding indicated a positive correlation that there would exist further justification for the establishment of a developmental course in study skills.

A random sample of ten percent of the undergraduate student body was selected for participation in this study. They were mailed the survey instrument and asked to complete it and return it to the Office of Student Affairs. When the survey forms were returned they were analyzed with the respective student's grade point average.

The results indicated that there was a definite positive correlation between the students' results of the Survey of Study Habits and Attitudes and the students' respective grade point average.

It was recommended that based on the results of this study York College of Pennsylvania establish a developmental course in study skills. It was also recommended that further studies be undertaken to determine if positive correlations exist between the survey instrument utilized in this study and the results of the Scholastic Aptitude Test.

1. Introduction

A. Title of the Practicum

This practicum is entitled "An Investigation To Determine If A Positive Correlation Exists Between Student Scores On The Survey Of Study Habits And Attitudes And Students' Grade Point Average".

B. Statement of the Problem Investigated

The problem investigated in this study focused around determining if a positive correlation existed between student scores on the Survey of Study Habits and Attitudes and the student's respective grade point average.

C. Purpose of the Investigation

For the past year, members of the administration and faculty have discussed the possibility of establishing a developmental course in study skills. The results of an earlier study entitled "The Effects Of A Study Skills Workshop On Second Semester Freshman On Academic Probation", carried out by this author, indicated that there was a significant difference in the pre-test - post-test scores of students who were administered the Survey of Study Habits and Attitudes, and who participated in a study skills workshop. When the results of this aforementioned study were released to the College community, more discussion had been stimulated regarding the feasibility of developing such a course. Members of the faculty and administration including the Deans of Academic and Student Affairs had suggested that this

study be undertaken. If the results of this study indicate a positive correlation between study habits and attitudes and grade point average the results of both studies shall be presented to the Administrative Council on College Affairs for consideration when discussing the possibilities of establishing a study skills course.

This institution has found itself "caught up", as most other institutions throughout the nation, in an era of egalitarianism. The ramifications of this era have produced a proliferation of students from a wide variety of academic backgrounds enrolled in programs of study which have not been altered to accommodate this factor. More specifically stated, this institution has found itself housing students who for a variety of reasons simply do not have the academic background necessary in order to assure reasonable academic success. This factor not only leads to further negative reinforcement of concepts of formal education for these students but also affects the entire psychological state of these students, the institution's quality of education, and the rate of attrition. This situation in combination with the basic philosophy of the institution which is to afford each student the opportunity for success in their academic endeavors can certainly justify this study from an institutional perspective.

The study was carried out utilizing a survey technique whereby a ten percent random sample of the College population were selected and requested to respond to the Survey of Study Habits and Attitudes. When the results of the survey instrument were returned the group was matched by year in school, marital status, sex and residency. The results of the survey

instrument and Fall term grade point average were then listed for members of the matched sample. The calculation to determine if a positive correlation existed was then performed.

2. Background and Significance of the Study

This study was designed to relate to the Core Module "Learning Theory and Application". The topic of this study seemed to relate to this particular Core Module because study habits and grade point average are two entities directly related to theories of learning. There were certain basic concepts discussed during the Core Module which in combination with local (institutional) concerns led to the selection of this particular study. There was a great deal of time expended during the Module discussing techniques for the management of learning as well as discussing the various designated skills and techniques designed to facilitate learning.

With respect to the local situation, it should be mentioned that for some time now members of the college community have been concerned with the possible establishment of a developmental course in study skills. Because some are concerned with the feasibility of establishing such a course, it has been suggested that this study be undertaken in order to substantiate the conceptual basis for its establishment.

It had previously been decided by some members of the Administrative Council on College Affairs, including the Deans of Student and Academic Affairs, that if there was found to be a positive correlation between the students' scores on the Survey of Study Habits and Attitudes and their

respective grade point average that these results would be presented to this body (the Administrative Council on College Affairs).

In an earlier study entitled "The Effects Of A Study Skills Workshop On Second Semester Freshman On Academic Probation" the results indicated that there was a significant difference (at .05 l.o.c.) in the pre-test - post-test scores of students who were administered the Survey of Study Habits and Attitudes and participated in a study skills workshop. This study was carried out in York College of Pennsylvania by your author and the results have provided further substantiation for this investigation.

It was the opinion of your author as well as those members of the college community who felt this study to be of significant value that it would be reasonable to assume that if there was found to be a positive correlation between the scores of the survey instrument and the respective grade point average, that if we improved students' study habits and attitudes that their grade point average would similarly improve.

Inasfaras other studies which were of significant interest and influence in the selection of this topic it seems appropriate to mention that although there is a great deal of discussion relating study habits and grade point average, and the probable correlation between the two, active research of this nature is certainly less copious than would be expected, or at least less published. It seems that ex post facto (quasi experimental research in the area of improved grades and pre-test - post-test scores on survey instruments are much more abundant. As a result, it would seem necessary to cite both types of studies in the background of this study.

It would seem appropriate at this time to note that Brown and Holtzman (1967) made reference to the validity and reliability of the survey instrument ey developed which was utilized in this study. The authors state that:

> The validity coefficients vary from .25 to .45 with a weighted average of .36. The correlations between SSHA-SO [the composite scores utilized in this study] scores and grade point averages are statistically significant and positive for all schools.

Inasfaras reliability, it is further indicated that the test-retest coefficients with a four week interval were .93, .91, .88, and .90.

In the aforementioned study carried out by your author at York College of Pennsylvania, Pierog (1975) refers to a study entitled "Group Study For Low-Achieving Freshman Males In A Residence Hall Setting". In this study:

> ...two groups of second semester freshman who received less than a 2.0 average in a 4.0 system were matched on the composite score of the American College Test, age, and academic load. One group attended a study session which lasted for two hours in duration each evening. The program ran four evenings a week for a period of eight weeks. At the end of the semester, there was no significant difference in grade point average between the two groups.

Hinrichsen (1972) in a study entitled "Prediction Of Grade Point Average From Estimated Study Behaviors" relates an experiment using 144 students at Vanderbilt University. In this study participants estimated the length of time they engaged in study, the number and length of time of interruptions during their study periods, and the number of days each week that they studied. Though it was found that the best single predictor of grade point average was the Scholastic Aptitude Test - Verbal Score, it was found that the predictive accuracy of students' grade point average was increased

significantly when the results of a test anxiety score and the amount of effective study time per week were utilized in a prediction equation.

Caple (1969) conducted a study where two groups of freshman students who received less than a 2.0 average on a 4.0 system for their first term were matched by respective age, academic load and composite test scores on the American College Test. The experimental group attended a study skills workshop which ran for two hours each evening, four evenings a week for eight weeks. It was found that there was no significant difference between the experimental and control groups grade point average at the end of the second term. That following fall Caple repeated his study. That time he also utilized a third group which underwent the study sessions and also received tutorial help. Again, at the end of the semesters, there appeared no significant difference in grade point averages between any of the groups. After the results of these two studies, Caple then concluded that organized study sessions do not have an effect upon the academic achievement of student participants.

In a study conducted at the University of Mississippi, Wilson (1968) matched two groups of Liberal Arts students by composite American College Test score, matriculation date, age and sex. The experimental group attended study skills classes and the control group did not. Wilson reported that at the end of the study there was no significant difference in academic achievement between the groups.

Allen, Hinrichsen and Lerner (1972) found that high school rank was the best predictor of grade point average and that when combining this

with study behaviors and test anxiety the prediction was significantly more accurate.

Corlett (1974) found that students' results on the Library Orientation Test and the Survey of Study Habits and Attitudes were both closely related to students' respective grade point average.

In a study by Cooper and Foy (1969) the results indicated that there was no relationship between student scores on the Survey of Study Habits and Attitudes and their achievement on examinations.

Kaye (1972) refers to a study conducted at the University of Connecticut where failing students were matched according to sex, first semester grade point average as well as the student's high school percentile score and their respective results on the Scholastic Aptitude Test. In this study the experimental group underwent study skills counseling. Students attended counseling sessions varying from one to one-and-one-half hours weekly. The sessions were composed of individual and group counseling sessions as well as instruction on effective study skills. While the results of this study indicated that at the end of the term both groups had improved their grade point averages, members of the experimental group had more than doubled their grade point averages.

Froman (1971) found no significant difference in students' final grade point averages between students who received peer tutoring, individual and group counseling with and without reinforcement, and students who did not.

In conclusion, it seems reasonable to remark that as the aforementioned studies have indicated there are varied results with regard to the success of study skills workshops or study skills sessions. It would be noteworthy to restate that an earlier study conducted at York College of Pennsylvania did indicate a significant difference in pre-test - post-test results of students attending such sessions. The studies by Brown and Holtzman, authors of the survey instrument, as well as the other studies referred to earlier seem to indicate that there probably exists a positive correlation between grade point average and the results of the Survey of Study Skills Habits and Attitudes.

The results of this study have proved to support this probability.

A. Limitations of the Study

a) The effectiveness of the survey instrument utilized may have imposed some limitations on the study. Different students may have interpreted the same questions in different ways.

b) The attitude of the students at the time they completed the survey form may have effected their responses to various questions.

c) The study attempted to utilize a ten percent random sample of undergraduate full-time students. After the matching process, only forty usable responses were obtained.

d) The intervening variables such as individual values and the maturation factor along with the basic assumptions may have further effected the validity and accuracy of the study.

B. Basic Assumptions

The following lists the basic assumptions which were considered for the investigation:

a) It was assumed that the students participating in this study validly and accurately responded to all questions included in the survey instrument.

b) It was assumed that at least fifty percent of the sample population would respond to the survey instrument.

c) It was assumed that the participants understood each of the questions on the instrument.

d) It was further assumed that the utilization of only the prior semester grade point average would not adversely affect the study.

e) It was assumed that the limitations as previously stated would not adversely affect the results of the study.

f) The final assumption was that this study was of significant importance to warrant the time and effort expended in carrying it out.

3. Procedures

A. Procedure for Collection of the Data

The data was collected in the following manner:

a) A random sample of ten percent of the undergraduate population was selected. The Computer Center at the institution assisted in this endeavor.

b) After the students' names had been selected for participation in this study they received a form letter, a copy of the survey instrument, and an answer sheet (copies are included in the appendix).

c) Students were asked to identify themselves by name, sex, residency (commuter or resident), year in school, and marital status.

d) A return addressed envelope (postage paid for students not living on campus) was supplied for students to return the survey instrument and answer sheet.

e) Dormitory supervisors received a list of those students participating in the study who were living in their dormitory. This allowed them to assist in the follow up procedure.

f) All students not responding to the questionnaire by the requested date received a follow up letter (copy included in the appendix).

g) When the responses were returned to the Office of Student Affairs, the answer sheets were matched by sex, residency (commuter or resident), year in school and marital status.

h) Those responses matched were then scored by hand.

i) The College Records Office provided the grade point average for the students' last semester (Fall, 1975).

j) The data was then ready for treatment.

B. Treatment of the Data

The data was treated utilizing the statistical calculation for determination of a positive correlation as follows:

one tailed test

$\alpha = .05$

df = 40 - 2 = 38

critical -r- value = .257

The null hypothesis was tested. There is no positive correlation between student scores on the Survey of Study Habits and Attitudes and their respective grade point average.

Ho : p = 0

Ha : p > 0

Ho will be rejected and Ha accepted if the calculated -r- value is greater than .257.

C. Hypothesis

The hypothesis for this study proposed that there was no correlation between student scores on the Survey of Study Habits and Attitudes and their respective grade point average.

D. Definition of Terms

The following terms were defined for the purpose of this study:

a) Academic Failure - The student perceives that he or she is dissatisfied with their academic achievement, or when a student

has been academically dismissed from the institution or obtains less than a 2.0 grade point average.

b) Attrition - A reduction in student enrollment as a result of academic failure.

c) Control Variables - Sex, marital status, class status, and residency status.

d) Dependent Variable - Grade point average.

e) Grade Point Average (G.P.A.) - That average which is computed by dividing the summation of weighted course credit by the sum of course credit when A is equal to 4; B equal to 3; C equal to 2; D equal to 1; and F equal to 0.

Example:	Course Credit		Grade Weight		
	3	x	2 (C)	=	6
	6	x	3 (B)	=	18
					24

24 ÷ 9 = 2.6 grade point average

f) Independent Variable - Scores of the Survey of Study Habits and Attitudes.

g) Intervening Variables - Values, maturation factor, motivation, special abilities (some of these can be partially controlled through random selection).

h) Resident Students - Students who live in college-owned or supervised housing.

i) Study Attitudes - That mental position assumed relative to an individual's academic development which has become a fixed feeling or mood itself.

j) Study Habits - Those behaviors, functions, or techniques which an individual performs relative to his academic development which have become a fixed doing through the process of repetition.

k) Success - That achievement which is viewed as satisfying by the student with reference to his academic endeavors and which is also viewed as average or above average level of achievement by the standards of the educational institution.

l) Survey of Study Habits and Attitudes - Developed by Brown and Holtzman. Copyright 1967 by The Psychological Corporation, New York, for the purpose of measuring study habits and attitudes.

4. Results

The following data records the results of the study:

one tailed test

α = .05

df = 40 - 2 = 38

critical -r- value = .257

calculated -r- value = .422

Ho is rejected and Ha accepted. There is a positive correlation between student scores on the Survey of Study Habits and Attitudes and their respective grade point average.

5. Discussion, Implications and Recommendations

The results of this study indicate that there is most definitely a

positive correlation between student scores on the Survey of Study Habits and Attitudes and their respective grade point average. This would tend to imply that as students' study skills and attitudes improve so would their grade point average.

The recommendations which result from this study begin by presenting these results to the Administrative Council on College Affairs. It is hoped that these results will provide further justification for the establishment of a developmental course in study skills. It is a further recommendation that other studies be carried out which would further add to the justification of the establishment of this course. Further indepth studies might be of an ex post facto design whereby a determination of significant correlation between survey results and grade point average is determined with an experimental group before and after attending a study skills workshop to determine if there is an improvement in grade point average and still a significant correlation after the workshop. A study combining survey scores with scores of the Scholastic Aptitude Test may also be carried out to determine if there is also a correlation between these two factors. All of these studies may further advance the justification for the establishment of such a developmental course in study skills.

It would be interesting to note that the survey groups utilized in this study were dichotomized by sex. A positive correlation existed between the results of the survey instrument and respective student grade point average for each group. The women's scores did, however, indicate a stronger relationship.

In summation, it was the purpose and intent of this study to determine if a positive correlation existed between the scores of the Survey of Study Habits and Attitudes and students' respective grade point average. The results of the study clearly indicate that such a positive correlation does exist and, therefore, some justification has been established for expending the funds and time necessary to develop a study skills course for students at York College of Pennsylvania.

BIBLIOGRAPHY

Allen, Lerner, Hinrichsen. "Study Behaviors and Their Relationship to Test Anxiety and Academic Performance," Psychological Reports, April, 1972, pp. 407-410.

Brown and Holtzman. "SSHA Manual," The Psychological Corporation, 1967, p.5, 16.

Caple, Richard B. "Group Study for Low-Achieving Freshman Males In A Residence Hall Setting," Journal of College Student Personnel, May, 1969, pp. 164-168.

Cooper, Foy. "Students' Study Habits, Attitudes and Academic Attainment," Universities Quarterly, Spring, 1969, pp. 203-212.

Corlett, Donna. "Library Skills, Study Habits and Attitudes and Sex as Related to Academic Achievement," Educational and Psychological Measurement, Winter, 1974, pp. 967-969.

Froman, Frank. "Effects of Peer Tutoring, Brief Individual and Group Counseling, and Reinforcement on the Academic Achievement of Risk College Students," Dissertation Abstracts International 32 (1972) 4346A (University of Tennessee).

Hilgard, Ernest R. "Theories of Learning and Instruction," University of Chicago Press, 1968.

Hinrichsen, James J. "Prediction of Grade Point Average from Estimated Study Behaviors," Psychological Reports, December, 1972, p. 974.

Kaye, Robert A. "A Required Counseling Study Skills Program for Failing College Freshman," Journal of College Student Personnel, March, 1972, pp. 159-162.

Pierog, John J. "The Effects Of A Study Skills Workshop On Second Semester Freshman On Academic Probation." Unpublished Ed.D. requirement, Nova University, 1975, p. 3.

Wilson, Robert. "The Influence of the Effective Study Course at the University of Mississippi Upon Academic Achievement," Dissertation Abstracts International 29 (1968) 1058 A (University of Mississippi).

INTRODUCTION

YORK COLLEGE OF PENNSYLVANIA
York, Pennsylvania

May 20, 1976

Dear Student:

The Student Affairs Division of York College of Pennsylvania, working in cooperation with the Department of Education of this institution, is conducting a very important survey.

It is our hope to determine if individual student's study habits and their grade point averages are related. The success of this research project may very well assist us in establishing a developmental program for students which would assist them in improving their study skills.

You have been randomly selected to participate in the study. Would you please complete the enclosed questionnaire and return it to the Student Affairs Office by Friday, June 4, 1976. A self-addressed stamped envelope has been included for your use for those students who do not live on campus.

We sincerely appreciate your cooperation in this endeavor and hope that we can continue to serve the needs of the students at York College of Pennsylvania.

Sincerely yours,

John J. Pierog, Director
Student Financial Aid

JJP/scs
Enclosures

FOLLOW UP

YORK COLLEGE OF PENNSYLVANIA
York, Pennsylvania

June 5, 1976

Dear Student:

On May 20, 1976, you were mailed a survey to complete and return to the Student Affairs Office by June 4, 1976. To this date we have not received your completed survey form.

Enclosed you will find a second copy of this form and a self-addressed stamped envelope for your convenience.

As you may remember, the results of these surveys will assist the Office of Student Affairs and the Department of Education in determining the need for establishing a developmental course in study skills. We would most certainly appreciate your completing this form and returning it to the Office of Student Affairs by Friday, June 11, 1976.

Thank you for your cooperation in this endeavor.

Sincerely yours,

John J. Pierog, Director
Student Financial Aid

JJP/scs
Enclosures

UNIVERSITY OF CALIF.
LOS ANGELES
JUL 2 1976
CLEARINGHOUSE FOR
JUNIOR COLLEGES